



North Carolina Department of Environment and Natural Resources
Division of Air Quality

Formaldehyde

CAS

50-00-0

Current North Carolina AAL = 0.15 mg/m³ (1 hour, acute irritant)

AAL Documentation

The 1985, the ACGIH TWA value for formaldehyde, based on acute eye, skin, and respiratory irritation effects, was 1 ppm (equivalent to 1.5 mg/m³).

$$\text{mg/m}^3 \text{ formaldehyde} = \frac{1 \text{ ppm} \times 30.031 \text{ (molecular weight)}}{24.45} \sim 1.5$$

The AAL was established by dividing 1.5 mg/m³ by an uncertainty factor of 10 in accordance with guidelines established by the North Carolina Academy of Sciences (1986/9187, Appendix D; Decision Tree). No time-related or severity of effect adjustments were made. Such adjustments are not generally made for acute irritants or in instances where irritation effects are reversible.

This information has been reconstructed using the decision matrix established by the North Carolina Academy of Sciences Air Toxics Panel, September, 1986.

Final version- June 2013 (CMP)